

29 JUN 1955

Rpt. 4c.

## REPORT ON OIL ENGINE ELECTRIC GENERATOR SETS

No. 1,152

20 DEC 1954

Date of writing Report 9.12.54.19 When handed in at Local Office 19 Port of Nottingham  
 No. in Survey held at Lincoln Date, First Survey 11.10.54. 27.10.54.  
 Reg. Book. 18.10.54. Last Survey 1.11.54. 19  
 Number of Visits 25.10.54.  
 on the Single } Screw vessel U. Woolwich  
 Triple }  
 Quadruple }  
 Built to the order of:- ~~By whom made~~ Caledon S/B. Co. Ltd. Yard No. 491 When built  
 Owners 530017 & Port belonging to 379327  
 Oil Engines made at Lincoln By whom made Ruston & Hornsby Ltd. Contract No. S. 379328 &  
 Generators made at Sunderland By whom made Sunderland Forge & Eng. Co. Ltd., Generator 61725-6 & 4.  
 No. of Sets 3 Engine Brake Horse Power 153 M.N. as per Rule 30.60. Total Capacity of Generators 300 Kilowatts.  
 Is Set intended for essential services.

OIL ENGINES, &c.—Type of Engines 6VCBZ. 2 or 4 stroke cycle 4 Single or double acting SA  
 Maximum pressure in cylinders 730 ± 3% Diameter of cylinders 8" Length of stroke 10 3/4" No. of cylinders 6 No. of cranks 6  
 Mean indicated pressure 104 Firing order in cylinders Span of bearings, adjacent to the Crank, measured from inner edge to inner edge 9 3/16"  
 Is there a bearing between each crank Yes. Moment of inertia of flywheel 10 3/4" x 10 3/4" x 10 3/4" GD<sup>2</sup> 9.15 tons ft.  
 Flywheel dia. 3' 9" Weight 21 cwts. Means of ignition Compression Kind of fuel used Diesel Oil.  
 Crank Shaft, dia. of journals as per Rule 4" as fitted 6" Crank pin dia. 4 3/4" Crank Webs Mid. length breadth 8" Thickness parallel to axis —  
 as fitted 6" Mid. length thickness 2 1/2" shrunk Thickness round eye hole —  
 Flywheel Shaft, diameter as per Rule — as fitted — Intermediate Shafts, diameter as per Rule — as fitted — General armature, moment of inertia (16 m<sup>2</sup> or Kg.-cm.<sup>2</sup>)  
 Are means provided to prevent racing of the engine when declutched Yes. Means of lubrication Forced Kind of damper if fitted —  
 Are the cylinders fitted with safety valves Yes. Are the exhaust pipes and silencers water cooled or lagged with non-conducting material  
 Cooling Water Pumps, No. One engine driven Is the sea suction provided with an efficient strainer which can be cleared within the vessel  
 Lubricating Oil Pumps, No. and size One engine driven 350 gals/hour.

Air Compressors, No. No. of stages Diameters Stroke Driven by  
 Scavenging Air Pumps, No. Diameter Stroke Driven by  
 AIR RECEIVERS:—Have they been made under Survey State No. of Report or Certificate

Is each receiver, which can be isolated, fitted with a safety valve as per Rule  
 Can the internal surfaces of the receivers be examined What means are provided for cleaning their inner surfaces  
 Is there a drain arrangement fitted at the lowest part of each receiver  
 High Pressure Air Receivers, No. Cubic capacity of each Internal diameter thickness  
 Seamless, lap welded or riveted longitudinal joint Material Range of tensile strength Working pressure by Rules  
 Starting Air Receivers, No. Total cubic capacity Internal diameter thickness  
 Seamless, lap welded or riveted longitudinal joint Material Range of tensile strength Working pressure by Rules

ELECTRIC GENERATORS:—Type DP. CW. CR. Machines Nos. 61725-6 & 4.  
 Pressure of supply 220 volts Full Load Current 454 Amperes Direct or Alternating Current DC.  
 If alternating current system, state the periodicity Has the Automatic Governor been tested and found as per Rule when full load is suddenly thrown  
 on and off Yes. Generators, are they compounded as per Rule Yes. is an adjustable regulating resistance fitted in series with each shunt field Yes.  
 Are all terminals accessible, clearly marked, and furnished with sockets Yes. Are they so spaced  
 or shielded that they cannot be accidentally earthed, short circuited, or touched Yes. Are the lubricating arrangements of the generators as per Rule Yes.  
 If the generators are under 100 kw. full load rating, have the makers supplied certificates of test and do the results comply with the requirements  
 If the generators are 100 kw. or over have they been built and tested under survey Yes.  
 Details of driven machinery other than generator

PLANS.—Are approved plans forwarded herewith for Shafting 20.12.38. Receivers Separate Tanks  
 (If not, state date of approval)  
 Have Torsional Vibration characteristics if applicable been approved 4.5.53. Armature shaft Drawing No.  
 (state date of approval)  
 SPARE GEAR Supplied to Rule Requirements.

The foregoing is a correct description,

Ruston &amp; Hornsby Limited

Manufacturer.

J. F. Buchanan



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Lloyd's Register  
Foundation

013224-013231-0051



Dates of Survey while building: During progress of work in shops - - 22.3.54. 11.10.54. 27.10.54. 18.10.54. 1.11.54. 23.4.54. 25.10.54. During erection on board vessel - - 23.4.54. 22.3.54. 11.10.54. Total No. of visits 7. Dates of Examination of principal parts - Cylinders 18.10.54. Covers As cyls. Pistons As cyls. Piston rods - Connecting rods As cyls. Crank and Flywheel shafts As cyls. Intermediate shafts - Crank shaft Material Steel. Tensile strength LL. 7594. RE. 8929. Identification Marks LL. 9522. RG. 3061. Elongation LL. 4462. LF. 4825. Flywheel shaft, Material Identification Marks Identification marks on Air Receivers

Is this machinery duplicate of a previous case.....If so, state name of vessel.....

GENERAL REMARKS (State quality of workmanship, opinions as to class, &c.)

These Engines have been built under Special Survey in accordance with the Approved Plans and Rules and Regulations of the Society, materials and workmanship being good. On completion the sets were tried in the Shops under working conditions and found satisfactory. The sets have been despatched for installation on board the vessel.

The generator engines have been efficiently installed in the vessel, tested under full power conditions and are eligible to be classed with the main machinery.

A.B. Sinclair.

The amount of Fee ... £ 14 : 10 : 0 { When applied for 9.12.54. 19 C. 20011. A/C. No. 8411. Travelling Expenses (if any) £ : : { When received 19

GLASGOW 28 JUN 1955

Surveyor to Lloyd's Register of Shipping.

SEE ACCOMPANYING MACHINERY REPORT



20.8.47.-T. (MADE AND PRINTED IN ENGLAND) (The Surveyors are requested not to write on or below the space for Committee Minute.)